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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,297	10/22/2003	Geary G. Parke	107725/00006	2242

7590 02/06/2007

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EXAMINER	
CINTINS, IVARS C	
ART UNIT	**PAPER NUMBER**
1724	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/691,297	PARKE, GEARY G.	
	Examiner	Art Unit	
	Ivars C. Cintins	1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 November 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16 and 21* is/are pending in the application.

4a) Of the above claim(s) *13-16* is/are withdrawn from consideration.

5)☒ Claim(s) *1-6 and 10-12* is/are allowed.

6)☒ Claim(s) *7-9 and 21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 7-9 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. The limitation that the adsorption apparatus functions "without the use of ion exchange techniques" does not appear to be supported by the disclosure originally filed, and hence constitutes **new matter**. Applicant should note that merely disclosing a list of known purification techniques, including ion exchange, coupled with the statement that "[t]hese techniques are all relatively expensive and generally produce a concentrated waste which requires further handling or treatment" (page 1, lines 18-20) is not deemed to provide sufficient support for the above noted newly recited limitation.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hong (U.S. Patent No. 5,665,240). Hong discloses apparatus comprising an inlet connected to a metals trap (second matrix), and a second trap (first matrix) positioned between the inlet and the metals trap, which second trap contains a phosphate material (see col. 3,

lines 17 and 33; col. 4, lines 64-67; and col. 5, line 29). Accordingly, this reference discloses the claimed invention with the exception of the recited particle size of the phosphate material. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ phosphate particles having the recited size in the system of Hong, since this reference clearly suggests utilizing large particles in commercial applications (see col. 8, lines 14-18).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hong as applied above, and further in view of Jensen et al. (U.S. Patent No. 6,706,195). The primary reference discloses the claimed invention with the exception of the recited plumbing arrangement. Jensen et al. discloses a water purification system, and teaches utilizing a plurality of chambers having inlet and outlet valves controlled by a controller (see col. 4, lines 41-45). This reference further teaches the use of diagnostic devices (col. 4, line 23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the system of Hong with the plumbing arrangement of Jensen et al., in order to obtain the advantages disclosed by this secondary reference for the system of the primary reference.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hong as applied above, and further in view of Faylor et al. (U.S. Patent No. 3,870,033). The primary reference discloses the claimed invention with the exception of the recited oxidizer. Faylor et al. discloses purifying water with a series of treatments including oxidation (see col. 5, line 61). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the system of Hong with the oxidizer

unit of Faylor et al., in order to provide additional purification of the liquid undergoing treatment in this primary reference system.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hong and Faylor et al. as applied above, and further in view of Christensen et al. (U.S. Patent No. 5,932,111). The modified primary reference discloses the claimed invention with the exception of the recited oxidizer material (i.e. potassium permanganate). Christensen et al. discloses that it is known to oxidize organic contaminants with either chlorine or potassium permanganate (see col. 1, lines 52-55). It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the potassium permanganate of Christensen et al. for the chlorine disclosed by Faylor et al. (col. 5, line 61), since this potassium permanganate is capable of oxidizing organic contaminants in substantially the same manner as the chlorine of the modified primary reference, to produce substantially the same results.

Claims 1-6 and 10-12 remain allowed because the references of record do not teach or fairly suggest an adsorption apparatus of the type recited wherein the second trap contains fish bone char.

Applicant's arguments filed November 10, 2006 have been noted and carefully considered but are not deemed to be persuasive of patentability. Applicant argues that the limitation added to claims 7-9 does not constitute new matter because Applicant's Background section of the specification discloses disadvantages associated with ion exchange techniques. It is pointed out, however, that merely pointing out certain disadvantages associated with prior art separation techniques is not deemed to provide

sufficient basis for the recitation of an apparatus without the use of ion exchange techniques. One of ordinary skill in the liquid purification art would merely conclude from this disclosure that Applicant's invention could be used for the treatment of wastewater, not that this invention must be used without any additional known techniques.

Applicant's remaining arguments have also been noted and carefully considered, but no longer appear to be relevant in view of the new grounds of rejection.

Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to I. Cintins whose telephone number is 571-272-1155. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00

PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Duane Smith, can be reached at 571-272-1166.

The centralized facsimile number for the USPTO is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ivars Cintins

Ivars C. Cintins
Primary Examiner
Art Unit 1724

I. Cintins
February 2, 2007